founded explanation, are the following: By deprivation of arterial blood the nerve centres lose gradually their excitability, since the accumulated store of complex molecules, whose decomposition furnishes the force, is gradually exhausted. These and the following statements apply, according to Luchsinger, equally to all irritable tissues. The stimulus, for instance, the accumulation of waste products, must hence increase before it can evoke a response. Every *discharge*, however, of a nerve centre leaves it for a short time in a more irritable condition, as can be proven by numerous physiological instances. Hence, the first discharge of energy is followed by a group of discharges until the fatigue becomes too great. The next series of discharges can only occur, hence, by the time the stimulus has increased to a sufficient extent.

INNERVATION OF THE UTERUS.—Experiments on the above topic have been performed by Dr. G. Reni (*Pflüger's Archiv*, vol. xxiii., H. 1 and 2, p. 68) by means of the method of nerve section, a plan hitherto but little employed in connection with the uterus. Instead of watching the uncertain results of experimental irritation, the author observed whether the processes of conception, gestation and delivery, were interfered with by division of the sympathetic or the sacral nerves. As a result, he found that the functions of the uterus are not sensibly disturbed by cutting off its entire nerve supply. Extirpation even of the ganglia in the plexus surrounding the cervix, the *ganglion cervicale*, did not interfere with the uterine functions.

THE IDIO-MUSCULAR CONTRACTION is the subject of a posthumous paper by Lautenbach in the *Philadelphia Medical Times* (Sept. 25, 1880). He claims with Schiff that this form of contraction is the only positive evidence of independent muscular irritability, and that it is not, according to some German views, merely the remnant of a general muscular contraction. His experiments were made with saponin which, when dropped upon muscle in a solution of one per cent., produced a localized idio-muscular contraction merely. If the solution is carefully injected into the vessels, the muscle is often thrown into a state in which no stimulus whatever can evoke a general contraction, while tapping readily produces a limited idio-muscular ridge. He considers the effect of saponin upon muscles as identical with rigor mortis, and the latter but the last idio-muscular contraction

of a muscle. He adds that the myosin can be removed from muscles by means of a five-per-cent. solution of chloride of ammonium injected into the vessels, without altering the microscopical appearance. But after this procedure, neither general nor idio-muscular contractions are possible.

ACTION OF PRESSURE ON THE MOTOR AND THE SENSORY NERVES.—Luederitz, *Zeitschr. f. Klin. Med.*, Bd. iii (abstr. in *St. Petersb. med. Wochenschrift*, No. 42, 1880), has applied compression to the sciatic in rabbits by a ligature for varying periods of time, and found that, even after complete suppression of all conduction, the nerve returned to its normal functions on loosening the cord. This occurred four to six times in succession, by alternately tightening and loosening the ligature. He found, further, that with gradual increase of pressure the suppression of function occurred earlier in the motor nerves than in the sensory ones, so much so, indeed, that when the motor conduction was completely destroyed, that for sensation remained still intact. In some cases there was an apparent retardation of the sensory conduction at the point of compression.

These facts agree well with those of clinical observation. Vulpian remarks regarding spinal paralysis : "If there is conservation of sensibility with abolition of voluntary motility, we may say almost with certainty that we have to deal with compression." Baerwinkel and Duchenne remark in regard to peripheral paralysis, that the presence of sensibility, even if weakened, is a very favorable circumstance as regards prognosis.

THE VASO-DILATOR NERVES.—At the session of the Sociétié de Biologie, July 17, 1880 (rep. in *Gaz. Des Hôpitaux*, No. 86), M. Laffont, continuing his investigations on the vaso-dilator fibres contained in the different peripheral branches of the trigeminus nerve, announced that, as he had shown to the society on the 17th of January, he had succeeded in dividing simultaneously within the cranium the facial and the accessory nerve of Wrisberg, the trigeminus between the gasserian ganglion and the pons Varolii, and one month later the excitation of the peripheral ends of the buccal, lingual and superior maxillary nerves of the same sides produced as strong a congestion of the mucous membrane on the side operated upon as on the other.